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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,410	12/03/2003	Norbert Weghaus	WEGHAUS1	4749
1444	7590	01/31/2005	EXAMINER	
BROWDY AND NEIMARK, P.L.L.C. 624 NINTH STREET, NW SUITE 300 WASHINGTON, DC 20001-5303			ADDISU, SARA	
			ART UNIT	PAPER NUMBER
			3722	

DATE MAILED: 01/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/725,410	<b>Applicant(s)</b> WEGHAUS ET AL.	
	<b>Examiner</b> Sara Addisu	<b>Art Unit</b> 3722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/3/03</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a) because they fail to show "pitch a" as described in the specification (Page 10, line 20, & page 11, line 7). Additionally, drawings fail to show "b" as described in the specification (Page 11, lines 2 and 12). Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 3-6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claim 3, Applicant's states in the claim "broach cutting teeth (21), side by side relative .....are disposed annularly, wherein the cutting teeth (21a-21f), successive counter to the direction of broaching 22, are disposed in a row (6) that are parallel to the central longitudinal axis (11)." Furthermore, review of Specification (Page 11, lines 13-17), it is stated "broach with annular chip spaces 31 and a straight course of profile.....broach cutting teeth 21, successive counter to the direction of the broaching 22 lie in a row that are parallel..."

Regarding claim 4, Applicant's states in the claim "broach cutting teeth (21), side by side relative .....are disposed helically, wherein the cutting teeth (21a-21f), successive counter to the direction of broaching 22, are disposed in a row (6) that are parallel to the central longitudinal axis (11)." Furthermore, review of Specification (Page 12, lines 6-9), it is stated "chip spaces 31' extending helically .....broach cutting teeth 21'a-21'c, successive counter to the direction of the broaching 22 lie in a row that are parallel..."

Regarding claim 5, Applicant's states in the claim "broach cutting teeth (21"), side by side relative .....are disposed annularly, wherein the cutting teeth (21"a-21"c), successive counter to the direction of broaching 22, are disposed in twist-style rows (6)". Furthermore, review of Specification (Page 12, lines 15-19), it is stated "chip spaces 31 are arranged annularly .....broach cutting teeth 21"a-21"c, successive counter to the direction of the broaching 22 are disposed in helical or twist-style arrangement, as outlined by a corresponding twist-style rows 6".

Regarding claim 6, Applicant's states in the claim "broach cutting teeth (21")", side by side relative .....are disposed helically, wherein the cutting teeth (21"a-21"c), successive counter to the direction of broaching 22, are disposed in twist-style rows (6)". Furthermore, review of Specification (Page 12, lines 26-29), it is stated "a helical course of the chip spaces 31' and correspondingly a helical course of the broach cutting teeth (21"a-21"c), are arranged annularly .....rows 6' of the successive broach cutting teeth 21"a-21"c are provided to have a twist-style or helical course.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 2, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Psenka (U.S. Patent No. 2,683,919), in view of Applicant's Admitted Prior Art (AAPA), and further in view of Gotberg (U.S. Patent No. 2,276,385).

Psenka teaches an internal broach (10) for internally broaching tooth space (profiles) (30 or 40), defined by a bottom and flanks (see figure 3). Psenka also teaches a broach having a shank (with central longitudinal axis) leading in a direction of broaching and a series of circular [annular] blades (toothed sections, therefore having a distance (i.e. pitch) between the teeth) with several rows of broach cutting teeth (bottom cutting blades as well as first and second sides allocated to the flanks) disposed successively counter to the direction of broaching and parallel to the longitudinal axis (see figure 1 & 3), to form the desired depth and shape (Col. 3, lines 1-12).

Furthermore, Psenka teaches edges of both sides being non-cutting (without cutting ability) while the bottom cutting blade are intended for cutting (Col. 4, lines 10-12).

Additionally, the side surfaces (first and second) are unrelieved surfaces (therefore having no flank pitch) (Col. 6, lines 4-6) as well as guide flanks (Col. 2, lines 46-54).

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However, Psenka fails to teach one of the side surfaces (say second surface) being a relieved surface. Psenka also fails to teach bottom-cutting blade having a relief surface.

Applicant's Admitted Prior Art (AAPA) teaches that it is customary for the bottom cutting blades to have a relief surface (Specification Page 10, lines 8-9).

Gotberg teaches an internal broach (10) for profiles with a bottom and flanks (18) of female serrations of workpiece (see figures 1 & 3). Gotberg teaches side surfaces (18) being relived by grinding (page 2, left column, lines 48-54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify one side surface of Psenka invention to have a relief surface as taught by Gotberg for the purpose of avoiding rapid tool wear due to the side of the broach teeth rubbing with the side of the slot. It would also be obvious, as basic manufacturing practice, for the bottom cutting blades of Psenka invention to have a relief surface as admitted by Applicant.

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**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sara Addisu at (571) 272-6082. The examiner can normally be reached on 8:30 am - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea Wellington can be reached on (571) 272-4483. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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